

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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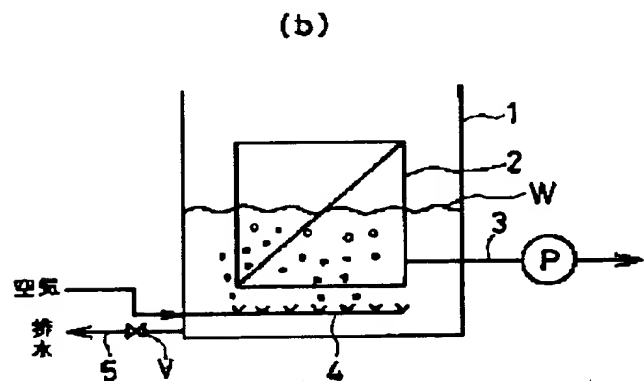
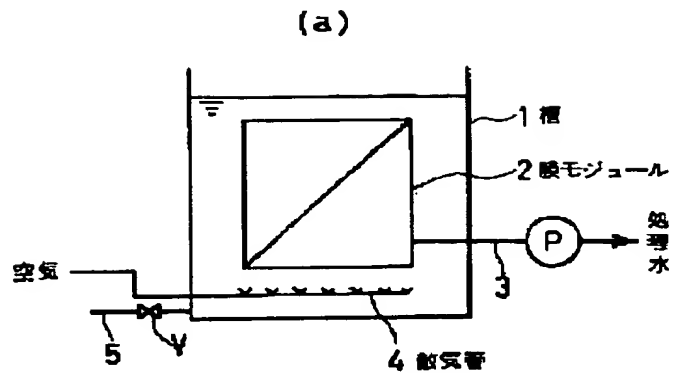
APPLICATION DATE : 03-08-93  
APPLICATION NUMBER : 05192455

APPLICANT : KURITA WATER IND LTD;

INVENTOR : SAWADA SHIGEKI;

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TITLE : WASHING OF MEMBRANE  
SEPARATION APPARATUS



ABSTRACT : PURPOSE: To efficiently remove the substance bonded to the surfaces of separation membranes contaminated by membrane separation treatment in a membrane separation apparatus wherein a membrane module is suspended in a tank.

CONSTITUTION: In a membrane separation apparatus wherein a membrane module 2 is suspended in a tank 1 and an air diffusion means 4 is provided under the membrane module 2, the water in the tank 1 is discharged while the diffusion of air is performed. Therefore, when transmission flux density is lowered by the bonding of the substance to the surfaces of the separation membranes by membrane separation treatment, membrane separation treatment is stopped and air is diffused by the air diffusion means and the water held in the tank 1 is discharged by a discharge means. The level of the water held in the tank 1 gradually falls from the upper part of the membrane module 2 to the lower part thereof no brained due to the discharge means but becomes a pulsating surface of extremely large and strong waves by the burst of air bubbles diffused by the air diffusion means 4. Therefore, the pulsating surface moves along the surface of the membrane module from above to below to effectively peel and remove the sticky substance bonded to the surfaces of the separation membranes.

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